University of North Carolina at Asheville
Journal of Undergraduate Research
Asheville, North Carolina
December 2012

Sanctuarium Naturalis: A Nexus of Science and Religion

Mary Claire Becker
Department of Art
The University of North Carolina at Asheville
One University Heights
Asheville, North Carolina 28804 USA

Faculty Advisor: Virginia Derryberry

Abstract

Sanctuarium Naturalis, a series of collaged and altered prints—primarily lithographs—juxtaposes components of scientific and religious art. Scientists and theologians are essentially searching for the same thing: a sense of greater meaning in the world around us. This body of work combines certain religious artists' use of natural imagery as decoration for reliquaries or manuscripts with scientific illustration's detailed meditation on natural specimens. Drawing influence from contemporary artists such as Kiki Smith and Tiffany Bozic who imbue natural subjects with spiritual significance, *Sanctuarium Naturalis* posits that prayer can be a component of interactions with the natural world. The resulting compositions glorify natural specimens using the rich ornament of the Catholic illustrative tradition, and scientific specimens are presented as symbols of discovery and higher knowledge.

1. Introduction

Central to the definition of both specimens and relics is the idea that when an object is removed from its original environment and preserved for display, it is given eternal life and symbolic power. It is transformed from a biotic component subject to decay and suddenly revered for its ability to instruct and to inspire contemplation. *Sanctuarium Naturalis* posits that spirituality can be drawn from study of nature, and influences include contemporary artists such as Kiki Smith and Tiffany Bozic who imbue their natural subjects with spiritual symbolism. This project aims to create art that allows viewers to study both relics and specimens simultaneously as a form of prayer and scientific discovery. In order to do this, I remove objects subject to decay from their original ecosystems in the Appalachian Mountains and transplant them (through illustration or preservation) into spaces specifically designed to glorify them as symbols of discovery and prayer. The creation of *Sanctuarium Naturalis* follows three phases in an object's transformation from an often-overlooked component of a larger system to a revered talisman for attaining higher knowledge: Collection, Presentation, and Symbolic Power.

2. Collection

Each art work in my series begins with the collection of fungi, bones, feathers, fallen leaves, and other forest debris that are either rendered in painstaking detail as scientific illustrations or preserved using resin and other agents that halt their process of decay. Like the objects in reliquaries or museum displays, these talismans are separated from their original environment and exempted from decomposition.

When selecting subject matter for this project, I considered the process through which relics and specimens are discovered and relocated for public display. Monks and bishops often procured relics for their sanctuaries by unearthing the bodies of martyrs from their tombs. Though dead bodies were considered to be carriers of disease, martyrs' corpses were thought to be protected from decay because of their closeness to God. Upon receiving such

relics unearthed from tombs, Bishop Alexander of Theveste exclaimed, "where once long rest had robbed them from our gaze, they now blaze with light on a fitting pedestal."[1] It is as if these corpses have risen above the process of decay in order to act as God's emissaries to the faithful.

Gentlemen naturalists of the 18th and 19th centuries also went through a process of selecting an organic object and exempting it from decay for the advancement of society's knowledge and power. Naturalists such as Alfred Russel Wallace and Charles Darwin traveled the world to collect specimens that are still housed in the Natural History Museum of London and other collections. Their accounts of these expeditions emphasize the beauty and excitement of the collection process in a way that demonstrates the importance of the specimens as precious talismans. Wallace wrote in 1854, "Imagine my delight in again meeting with many of my Singapore friends, - beautiful longicorns of the genera Astathes, Glenea and Clytus, the elegant Anthribidae, the pretty little Pericallus and Corriuris, and many other interesting insects. But my pleasure was increased as I daily got numbers of species, and many genera which I had not met with before."[2] Preserved through taxidermy, these specimens have achieved the eternal life attributed to Catholic reliquaries by being separated from their environments and frozen in time.

The common theme in religious and scientific collections is to exempt an object from the process of decay and isolate it for further study (Figure 1). The objects selected for *Sanctuarium Naturalis* are chosen for the same reasons and gathered during my own experiences as an explorer of North Carolina's Appalachian Mountains. I choose items that relate to the process of decay, emphasizing preservation as a bridge between the temporal and the eternal. Fungi and lichen are ecological decomposers and break down cells of other organisms, contributing to the process of decay. The bones and feathers chosen for my compositions are often the last part of an organism to be recycled into the soil as they decompose slowly, and thus act as symbols of mortality and reminders of past life for those who discover them. By collecting detritus and isolating it from the life cycle, *Sanctuarium Naturalis* seeks to preserve objects and freeze them in time as symbols of sacred and scientific knowledge.

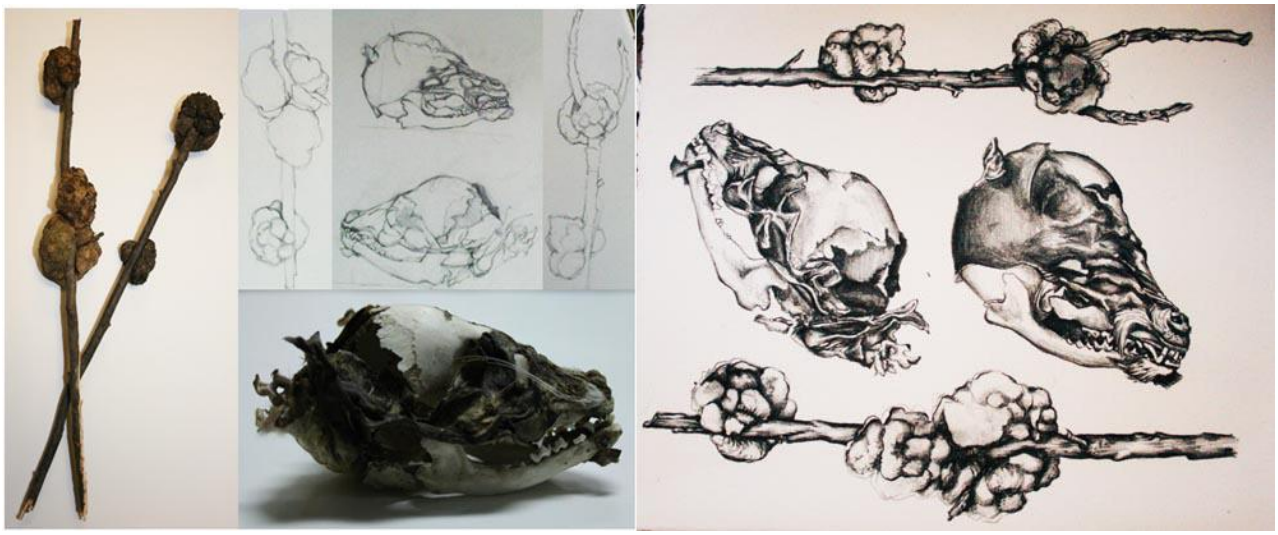

Figure 1. Mary Claire Becker, 2012, Specimens and Illustrations for *Homage to Howard's Knob*, Specimens, drawings, and lithograph.

Contemporary painter Tiffany Bozic's process of collection is similar to my own. She chooses specimens from her immediate surroundings that relate to her own emotional and physical experiences. She says, "most of the time spent out of my studio I am traveling overseas or hiking around California. I take a lot of photos in my trips and reference some of the photos that call out to me. Sometimes I bring interesting leaves, flowers, and icky bits to my studio and pose them to create settings. Sometimes I bring several photos together, or I build sets or dioramas in my studio."[3] For Bozic and for myself, first-hand experience is an important part of the artistic process. Like Darwin and Owen, we collect specimens to help us better understand our environments. Our final compositions are symbolic of our larger scientific and emotional experiences.

The prints of contemporary artist Kiki Smith also draw inspiration from the collection and preservation of natural forms. She chooses specimens that she can draw from life and isolates these subjects upon sparse backgrounds to emphasize the importance of the forms as symbols removed from their environments. Birds are one of her main subjects because they symbolize the Holy Spirit, and she at one point collected 30-40 live birds that she kept in her

bedroom. Many of her copper etchings and screenprints are based on sketches of various museum specimens. She has a working relationship with the Carnegie Museum of Natural History and selects subject matter from their specimen collections for works such as *Flight Mound (1997), Destruction of Birds (1997),* and *White Mammals*. Like the works in Sanctuarium Naturalis, Smith's prints emphasize collection and preservation as a process that exempts natural phenomena from decay. In *White Mammals*, she chose to "accentuate the specimens' status as corpses, even to the point of including the cotton that covers their eyes"[4] and in *Destruction of Birds* she draws the birds exactly as they appear in museum drawers: "flattened like shrouds or corpses."[5] Like relics and museum specimens, these prints display death images that will not disappear with the passing of time as do corpses in the natural world, but rather live on indefinitely as reminders of mortality and tools for knowledge. This is also the goal of *Sanctuarium Naturalis.*

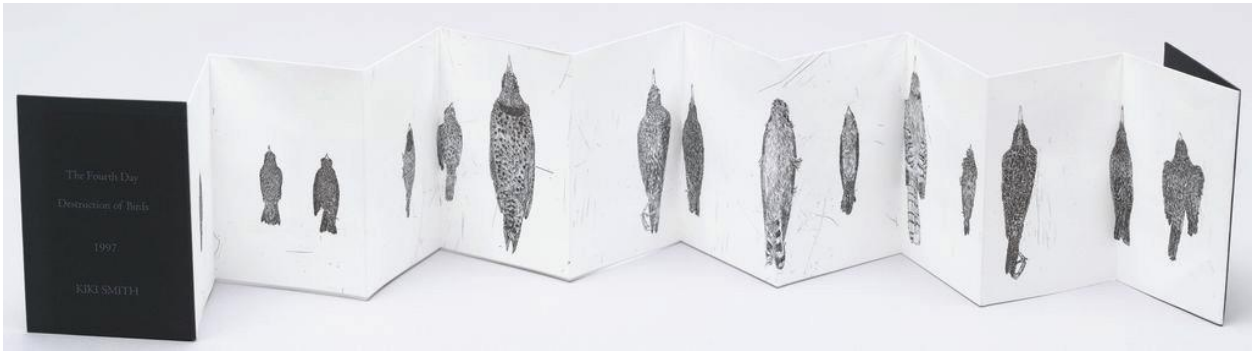

Figure 2. Kiki Smith, 1997, *The Fourth Day: Destruction of Birds*, Artist's book, page: 4 7/8" x 3 7/16"; sheet (unfolded): 4 7/8" x 41 3/4".

In Smith's work, as well as in my own, the process of printmaking mimics the process of collection by employing repeated elements. Printmaking matrices create multiples, and an edition of prints is visually similar to a taxonomic study's specimen collection in that the repetition of elements reinforces the similarity of form that verifies a common definition. In taxonomy, scientists collect type specimens as a way to document a species and emphasize the details of its form. Likewise, Smith's work *Flight Mound* emphasizes form through repetition. She uses screenprinting to duplicate images of birds and display them on a series of quilts. The quilts, with their array of individual birds forming a larger collection, is visually similar to a collection of paratypes such as this display of tiger moths collected by Peter Knudsen in 2003 and housed in the North Carolina Museum of Natural Sciences. My work *Reliquary Mandorla of Veera's Claw* employs a similar strategy for emphasizing the importance of a form through repetition by interweaving identical lithographs to create a decorative composition. Thus, the repetition of elements made possible through printmaking allows me to reference the collection process as a tool for solidifying definitions, important to the transformation of an object from detritus to revered symbol of knowledge.

Figure 3. Kiki Smith, 1997, *Flight Mound,* Screenprint on quilts, 162.6 x 170.2 cm, 44 blankets, each installation dimensions variable.

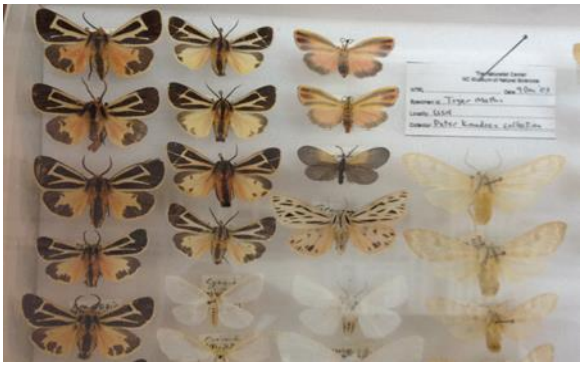

Figure 4. Tiger Moths, Peter Knudsen Collection, North Carolina Museum of Natural Sciences, Raleigh, NC, 2003.

Figure 5. Mary Claire Becker, 2012, Detail from *Reliquary Mandorla of Veera's Claw*, lithograph, entomology pins, 18" x 22".

3. Presentation

Presentation is another component of these objects' transformation into an art form that celebrates them as sacred talismans. In *Sanctuarium Naturalis*, each work is decorated with drawn ornaments mimicking the metalwork of medieval reliquaries, and the overall composition is mounted using Plexiglas or entomology pins atop a minimal background (Figure 6). Arranged in shadowboxes, these compositions simulate a museum display that includes both object and reliquary ornament. The ornamental designs are printed using lithography, cut out using an X-Acto knife, and collaged around and amongst the scientific illustrations. Through lithography, each image is drawn on a matrix of Bavarian limestone using a greasy pencil or wash, and then etched with nitric acid in a process that changes the stone's chemical makeup so that greasy areas are more receptive to grease and empty areas receptive to water. Thus, when the stone is dampened and rolled up in a grease-based litho ink, water and grease repel each other and the exact drawing may be transferred onto a sheet of paper when rolled through a printing press. Lithography is an important part of this process because it allows for detailed and precise drawings while also creating multiples of each design that can be collaged together to add the element of repetition. Like relics and specimens, the subjects in *Sanctuarium Naturalis* are defined by the manner in which they are composed and the context in which they are displayed.

Figure 6. Mary Claire Becker, 2012, *Homage to Howard's Knob*, lithograph, entomology pins, 22" x 30".

In the Catholic tradition, the way a relic is displayed (Figure 7) can be just as important in defining the object's holiness as its origins of martyrdom. In fact, the Lateran Council of 1215 explicitly defined a relic based on its presentation: the relic must be decorated with precious materials in order to gain the status necessary to grant miracles. The ecumenical council decreed, "we ordain by this present decree that henceforth ancient relics shall not be displayed outside a reliquary or be put up for sale."[6]

The manner in which a relic is decorated plays a great part in defining what historian Amy G. Remensnyder refers to as the "imaginative memory" of the object. The narrative behind a relic gives it its ascribed symbolism, which is often denoted in part by the decoration of its container, the reliquary. Remensnyder writes, "The precious materials from which reliquaries were typically constructed symbolically made visible what was hidden, and transformed it. The actual relic was a bodily fragment, something identifiably human. The gold, silver, and precious stones of the reliquary interpreted that fragment and revealed to the viewer what could not be seen even were the relic visible: the other and true nature of the saintly body, intact and glorified in heaven, reigning with Christ."[7]The glamour of these shrines helped to enhance the power of the cathedral in which they were housed and to reinforce the relics' status in the eyes of worshippers as powerful holy objects.

Figure 7. Reliquary of Saint Clement. Cathedral Museum, Siena, Italy.

While relics are separated from their beginnings as detritus through opulent decoration, natural history specimens, particularly those used for taxonomy, are traditionally glorified using a more minimal strategy, placed on sparse backgrounds in drawers or display cases (Figure 8). *Sanctuarium Naturalis* merges these two strategies by presenting both central object and supporting decorations as isolated elements floating above a clean space. The decorative elements function as a part of the specimen, and all elements hover above the background, usually mounted on Plexiglas or entomology pins to achieve the cast shadows thrown by specimens mounted under museum lights.

Figure 8. Specimen Display, Academy of Natural Sciences, Philadelphia PA.

I have found similar elements of presentation in the work of Tiffany Bozic and Kiki Smith. Like myself, Bozic combines austere backgrounds with complex and decorative images of nature to present her subject matter as enlightened and sacred. In *Rhino Beetles* (Figure 9), the background space is flattened into a subtle gradient of green fading into yellow, and the subject matter floats on top like a museum specimen in a drawer or case, separated from its environment. However, the composition is anything but simple, as Bozic uses fine detail and vibrant color to glorify the plants and animals she has chosen. As I have done in *Sanctuarium Naturalis*, Bozic uses each scientific illustration decoratively, placing the animals not in their original environments but in a composition that is symmetrical, monumental, and pleasing to the eye. She uses elements of repetition (two beetles, two flowers, many petals and leaves) that also adds to the decorative effect of her composition.

Figure 9. Tiffany Bozic, 2012, *Rhino Beetles*, acrylic on maple panel, 32" x 42".

4. Symbolic Power

Specimens and relics gain symbolic power when separated from their original environments and displayed as objects for study. When housed in a reliquary, a relic is in eternal communication with God and becomes valuable to viewers because of its healing properties and because of the story behind it. Medieval Catholic worshippers believed that relics could grant miracles and act as emissaries to God when honored with prayer and reverence. Relics symbolize the spirits of martyrs and the mysticism of communication with the divine.

There is a similar idea prevalent in Natural History that by studying the physiology of a specimen you gain special access to its essence. Historian Pamela Smith posits that in the early days of science it was often the illustrator's contributions to scientific texts that made the information accessible to the larger scientific community. She writes, "the artesian sought to imitate nature in order to activate the powers inherent in nature,"[8] The 16th century naturalist Paracelsus believed that by meditating on a form (for example, while duplicating it through illustration) one gains access to its *scientia,* or certain knowledge. In order to truly understand this "divine power," a scientist must achieve "bodily union" with the form. Paracelsus says, "Life in nature manifests the truth of these things…'art' is embedded in nature, he who can extract it has it."[9]

Depictions of nature in art often serve as symbols of larger existential truths, and Ernst Haeckel saw his art-making process as exactly what Paracelsus described. Haeckel scholar Olaf Briedbach explained the importance of art as part of the discovery process by saying, "For Haeckel, the illustration is not a depiction of existing knowledge, but is in itself the acquisition of knowledge…knowledge of nature is 'natural aesthetics.'" As in the creation of reliquaries, composition and presentation was symmetrical, decorative and controlled (Figure 10), and for Haeckel, "the symmetry of invertebrates such as medusae and sea anemones…was a manifestation of organization in nature."[10] By exaggerating this symmetry in *Art Forms of Nature (1904),* a set of lithographs based on his sketches and watercolors, Haeckel created fantastical forms that inspired wonder and reverence towards nature's aesthetic and organizational complexity.

Figure 10. Earnst Haeckel, 1904, "Plate 85: Ascidiacea" from *Kunstformen der Natur*, lithograph based on watercolor, 13 3/4" x 9 3/4".

Specimens are also seen as symbols of knowledge and power throughout the history of museum design. When planning the creation of the British Museum of Natural History, which is today the largest such collection in the world, Richard Owen, the naturalist in charge of the project, stressed the importance of displaying specimens in a venue that could instruct the public on the great Truths found in organic Nature. In the booklet, *On the Extent and Aims of a Museum of Natural History*, Owen explains the importance of such displays by praising, "Above all, the truth as it is in organic Nature…destined by Providence to be the instrument for the removal of…the obscuration and distortion of the rays of divine and eternal truth."[11] Thus, specimen displays are symbols for both spiritual and biological truths. Upon the building's completion, newspaper reviews even used religious language to describe the collection, and according to scholar Carla Yanni, "*The Times* compared the museum to Noah's Ark, and said the museum would restore an appreciation for the vastness of nature to city-dwellers. Biblical references and spirituality tinged language were commonplace."[12]

Scientific illustrators past and present such as Ernst Haeckel and Tiffany Bozic create compositions that extract art from nature, rendering detailed representations of natural forms that both instruct and uplift. These compositions give natural forms symbolic power by offering them forth as exemplars of natural beauty. It is also the intended goal of *Sanctuarium Naturalis* to extract truth from visual manifestations of nature. In order to do so, the project utilizes strategies historically employed for uncovering both spiritual and scientific truths, but also adds something new to the discourse by combining print and sculpture as a tool to discuss the line between the decorative and the real. The works aim to blend the emotional with the rational for a holistic spirituality.

As an artist, I identify with Bozic's statement: "I have always been drawn towards finding some kind of common thread or language that binds us to and separates us from nature and each other."[13] Traditionally, religion has been about exploring our internal worlds and science has been about exploring our external worlds. However, like Bozic, I do not see the two to be inherently separate. The similarities between relics and specimens serve to emphasize the point that science and religion touch on common themes as seekers of ultimate truth. Bozic's compositions are not simply depictions of animals but complex combinations of forms which she uses as symbols for her own introspection as she makes sense of her spiritual universe- she refers to her paintings as "diary entries."[14] In the words of journalist Courtney Jordan, Bozic's work is "a bit like falling down Alice's rabbit hole: the natural world looks familiar but plays by its own set of rules…Bozic's menagerie of exotic plant and wildlife makes up a new breed of fables."[15] I am also trying to create a new fable by presenting my subject matter as both relics and specimens. My fable blurs the line between the temporal and the eternal and posits that the physical and spiritual universes are inextricably intertwined.

5. Conclusion

Collection and Presentation are the framework within which a subject attains symbolic power. *Sanctuarium Naturalis* is both the culmination of my own journey of discovery as well as a tool through which viewers may meditate on the significance of the subject matter. I have collected specimens that are symbolic of my own exploration of mortality as it appears in the natural cycles of my surroundings and as it applies to my own participation in the ecosystem. This collection process is the beginning of my dialogue about the temporal nature of biotic elements and in a way acts as a *memento mori* as I connect their temporality to my own existence. However, the process of presentation allows me to freeze time and preserve these elements as symbols rather than objects.

When an object becomes a metaphor it gains a definition that is no longer dependent on its physical form and in this way becomes somewhat eternal. When these objects are presented as revered forms their nature becomes less literal and more spiritual: they are decorative, aesthetically important, and instructive. My working process embodies Paracelsus' and Haeckel's ideas that the illustration process is an acquisition of knowledge. The final product is the evidence of the object's educational usefulness and as such it becomes a talisman imparting knowledge, spiritual and scientific, upon its viewers. By including both real objects and artistic interpretations in my compositions (Figure 11), I further explore this tension between the literal object and its spiritual essence: scientific illustrations are derivative of original forms, yet both exude the essence of the object. My intention is that both the spiritual and scientific connotations of the selected specimens will be emphasized in *Sanctuarium Naturalis* and a prayerful meditation on these forms will encourage viewers to engage with their surrounding ecosystem.

Figure 11. Mary Claire Becker, 2012, *Aviary*, lithograph, chicken feet, Plexiglas, resin, 22” x 30”.

6. Acknowledgements

The author wishes to express her appreciation to faculty advisors Virginia Derryberry, Brent Skidmore, Robert Tynes, and Eric Tomberlin for their guidance during the research and art-making process. She also wishes to thank printmaking professors Robert Dunning and Tamie Beldue for their instruction and assistance, woodworker Valerie Berlage for her help in creating the shadowboxes, Steve Mann for photographing the works, and Highsmith Gallery coordinator Tracy Pouliot for managing the show space. Additional thanks go to fellow BFA students Katie Johnson, Emily Ellison, and Ashley Hinceman for their support and feedback during the creation of *Sanctuarium Naturalis*.

7. Endnotes

[1] Charles Freeman, *Holy Bones Holy Dust: How Relics Shaped the History of Medieval Europe*. (London: Yale University Press, 2011), 23.

[2] Melinda B. Fagan, "Wallace, Darwin, and the Practice of Natural History," *Journal of the History of Biology* 40, no. 4 (December 2007): 620.

[3] Tiffany Bozic, interview with Nicole Pasulka, "On the Origin of Intimacy," *The Morning News*, 22 November 2010, <http://www.themorningnews.org/gallery/on-the-origin-of-intimacy> (12 October 2012).

[4] Wendy Weitman, "Experiences with Printmaking: Kiki Smith Expands the Tradition." *Kiki Smith: Prints, Books & Things.* The Museum of Modern Art, 2003*:* 22.

[5] Ibid, 21.

[6] Fourth Lateran Council, 1215

[7] Amy G. Remensnyder, "Legendary Treasure at Conques: Reliquaries and Imaginative Memory," *Speculum* 71, no.4 (October 1996): 889.

[8] Pamela Smith, "Artisanal Knowledge and the Representation of Nature in Sixteenth-Century Germany," in *The Art of Natural History: Illustrated Treatises and Botanical Paintings, 1400-1850,* edited by Therese O'Malley and Amy R. W. Meyers. (Washington: National Gallery of Art. 2008), 21.

[9] Ibid, 24.

[10] J Malcolm Shick, "Towards an Aesthetic Marine Biology" *Art Journal*, Vol. 67, No.4 (Winter 2008): 82.

[11] Carla Yanni, "Divine Display or Secular Science: Defining Nature at the Natural History Museum in London," *Journal of the Society of Architectural Historians*, September 1996: 278.

[12] Ibid, 293.

[13] Tiffany Bozic, interview with Nicole Pasulka.

[14] Tiffany Bozic, quoted by Reyhan Harmanci. "It's in Her Nature: 'From the Depths: Inspiring Art and Science' Collaboration with a Creative Twist." *SF Chronicle.* 15 November 2007, <http://www.tiffanybozic.net/press-chronicle.shtml> (15 October 2012).

[15] Courtney Jordan, "Nature with a Bit of Edge." *Artist Daily*. 6 January 2011. <http://www.artistdaily.com/blogs/artistdaily/archive/2011/01/06/nature-with-a-bit-of-edge.aspx>. (15 October 2012).